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Cops and Robbers on geodesic spaces

The game of Cops and Robber is traditionally played on a finite graph. The purpose of this talk is to introduce and analyze the game that is played on an arbitrary geodesic space (a metric space in which each pair of points at distance d is connected by a geodesic of length d). The game is defined in such a way that it preserves the beauty and power of discrete games played on graphs and also keeps the specialties of the pursuit-evasion games played on polyhedral complexes. It is shown that the game can be approximated by finite games of discrete type. As a consequence a min-max theorem is obtained for the version of the game where the goal of the cops is to minimize the distance to the robber throughout the duration of the game.